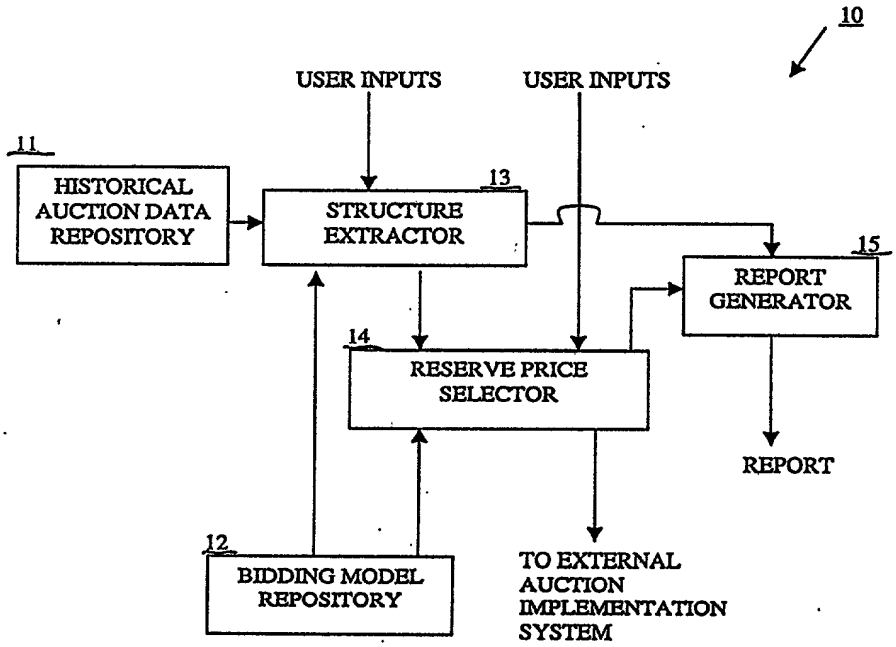
10
USER INPUTS
USER INPUTS
11
HISTORICAL AUCTION DATA REPOSITORY
13
STRUCTURE EXTRACTOR
15
REPORT GENERATOR
14
RESERVE PRICE SELECTOR
REPORT
12
BIDDING MODEL REPOSITORY
TO EXTERNAL AUCTION IMPLEMENTATION SYSTEM

FIGURE 1

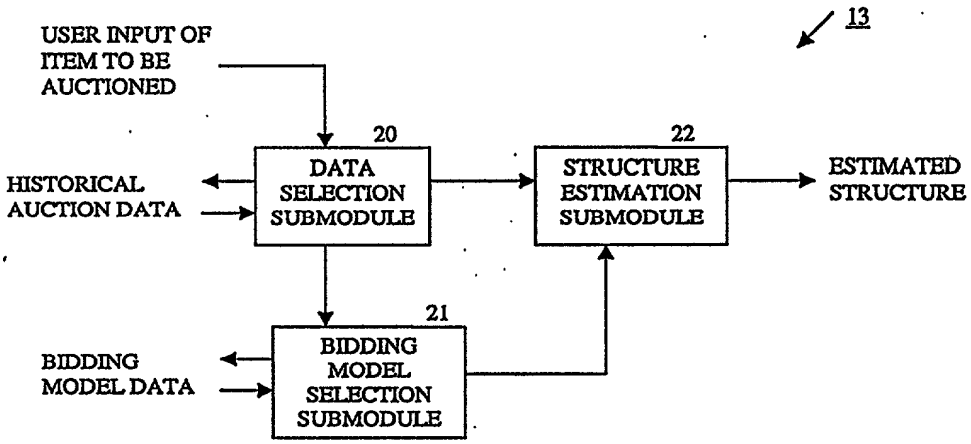
13
USER INPUT OF ITEM TO BE AUCTIONED
20
DATA SELECTION SUBMODULE
22
STRUCTURE ESTIMATION SUBMODULE
ESTIMATED STRUCTURE
HISTORICAL AUCTION DATA
21
BIDDING MODEL SELECTION SUBMODULE
BIDDING MODEL DATA

FIGURE 2

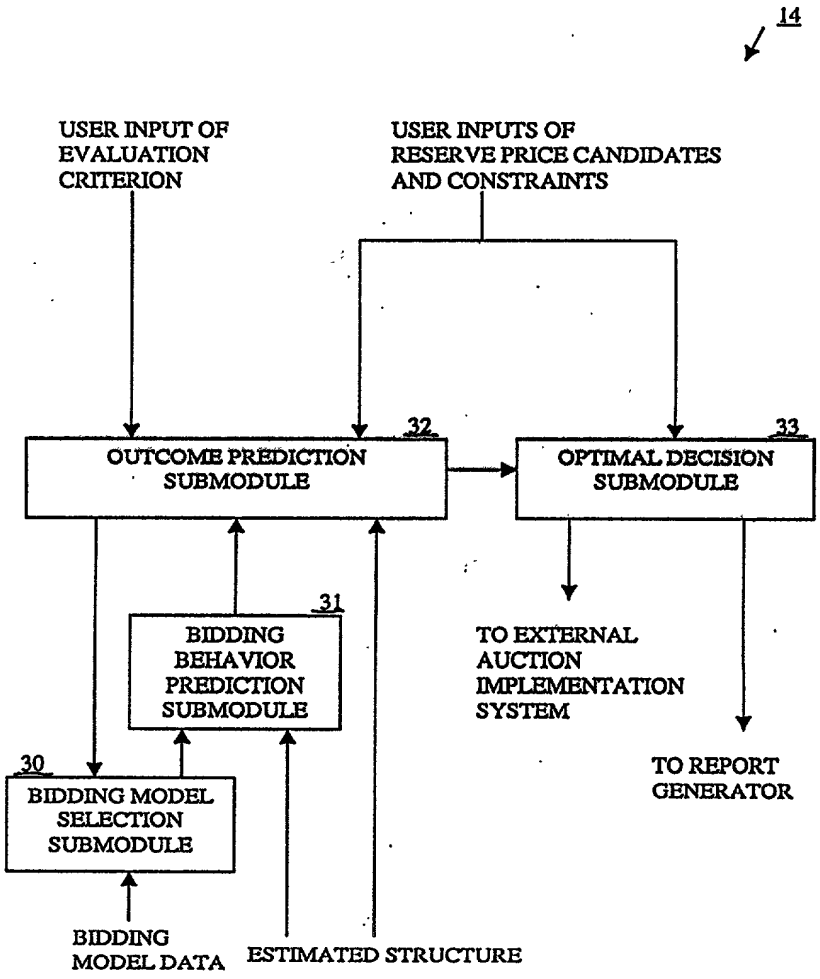
14
USER INPUT OF EVALUATION CRITERION
USER INPUTS OF RESERVE PRICE CANDIDATES AND CONSTRAINTS
32
OUTCOME PREDICTION SUBMODULE
33
OPTIMAL DECISION SUBMODULE
31
BIDDING BEHAVIOR PREDICTION SUBMODULE
TO EXTERNAL AUCTION IMPLEMENTATION SYSTEM
TO REPORT GENERATOR
30
BIDDING MODEL SELECTION SUBMODULE
BIDDING MODEL DATA
ESTIMATED STRUCTURE

FIGURE 3

DATA SELECTION SUBMODULE

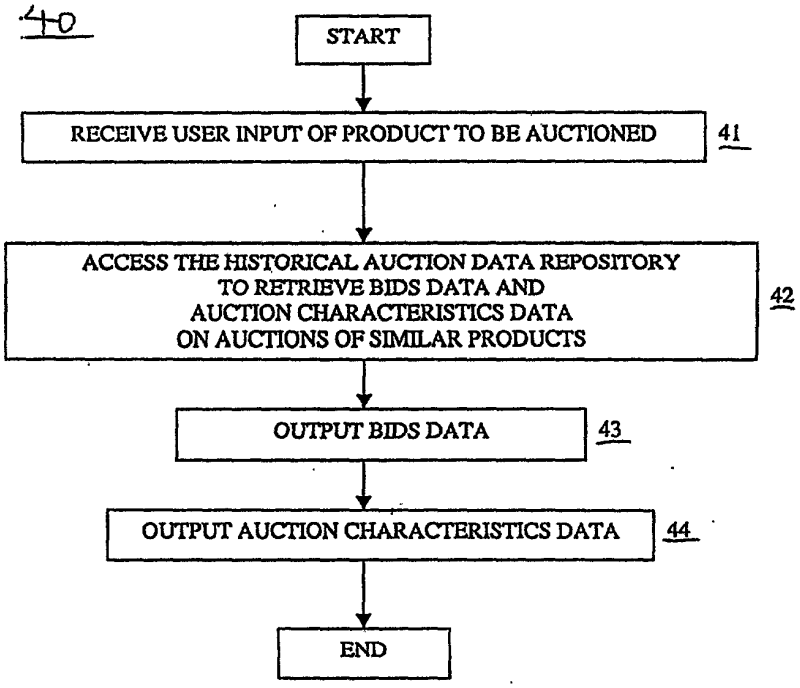

FIGURE 4

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BIDDING MODEL SELECTION SUBMODULE

50

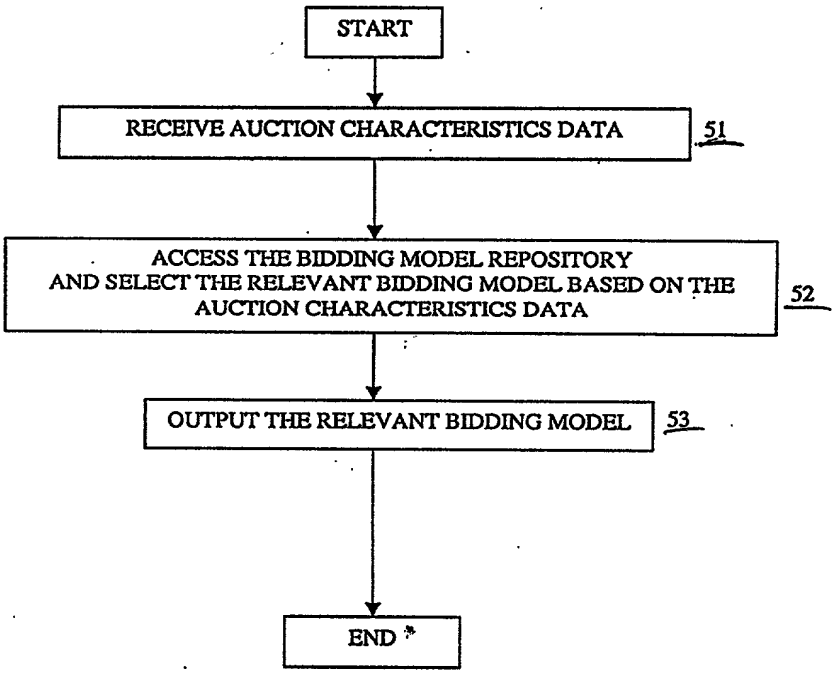

FIGURE 5

STRUCTURE ESTIMATION SUBMODULE

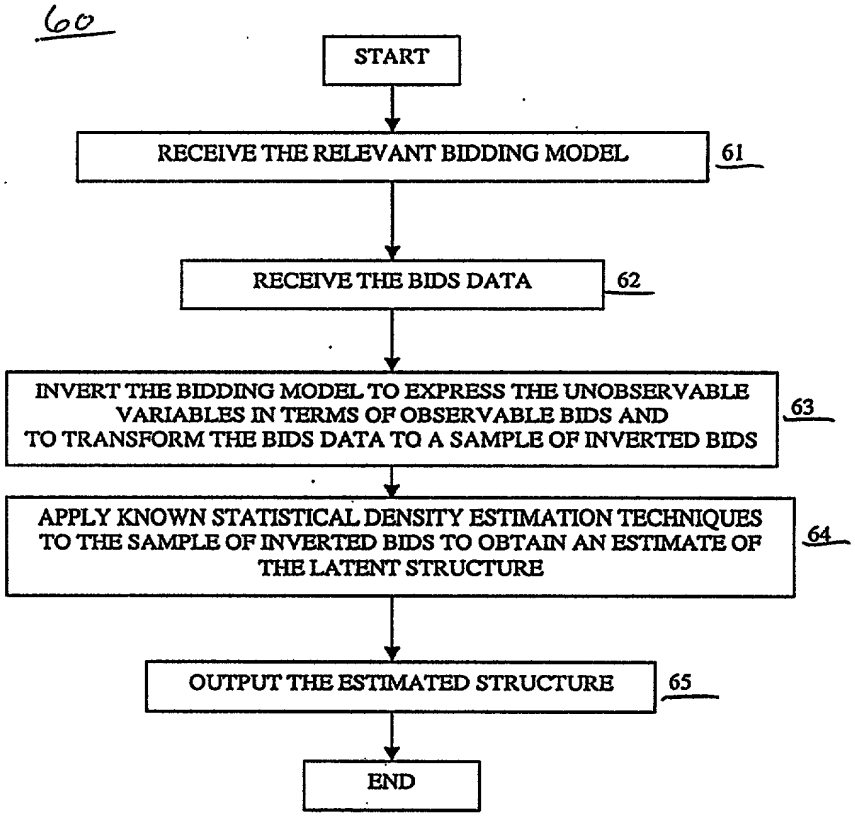

FIGURE 6

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BIDDING BEHAVIOR PREDICTION SUBMODULE

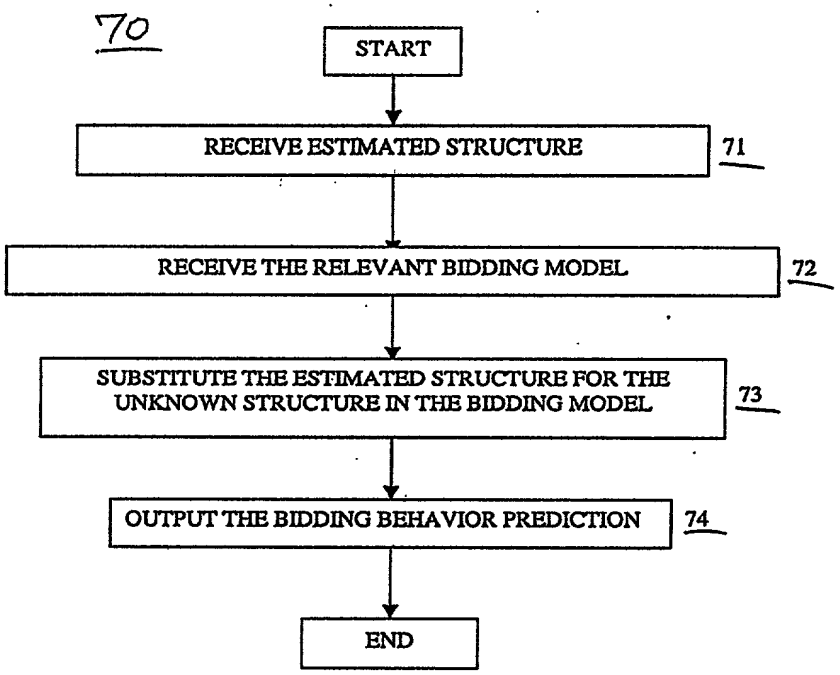

FIGURE 7

OUTCOME PREDICTION SUBMODULE

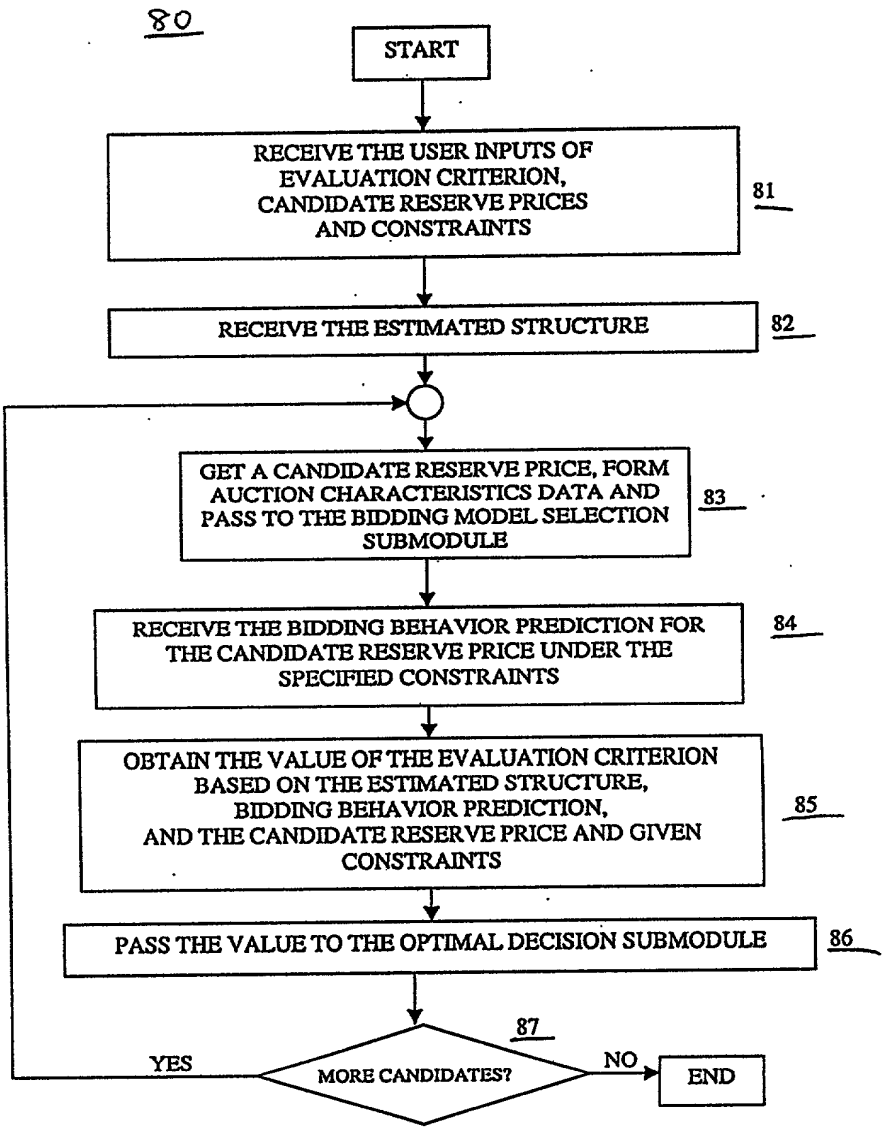

FIGURE 8

OPTIMAL DECISION SUBMODULE

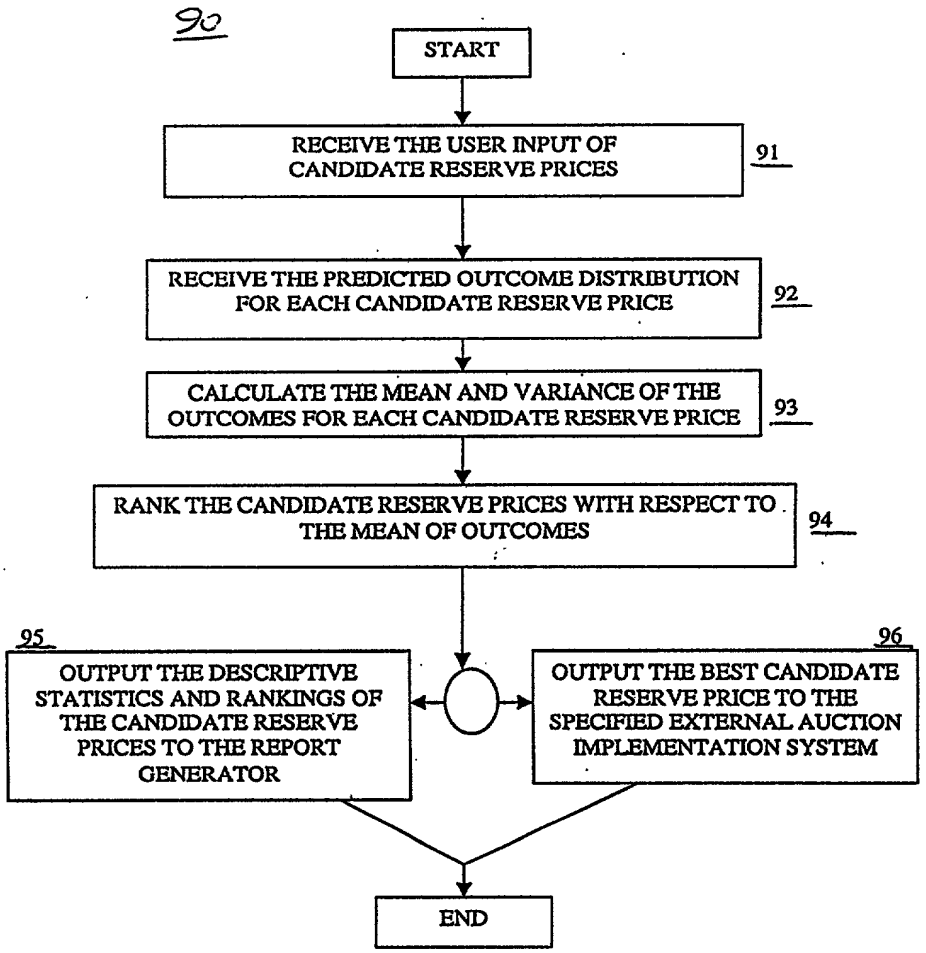

FIGURE 9

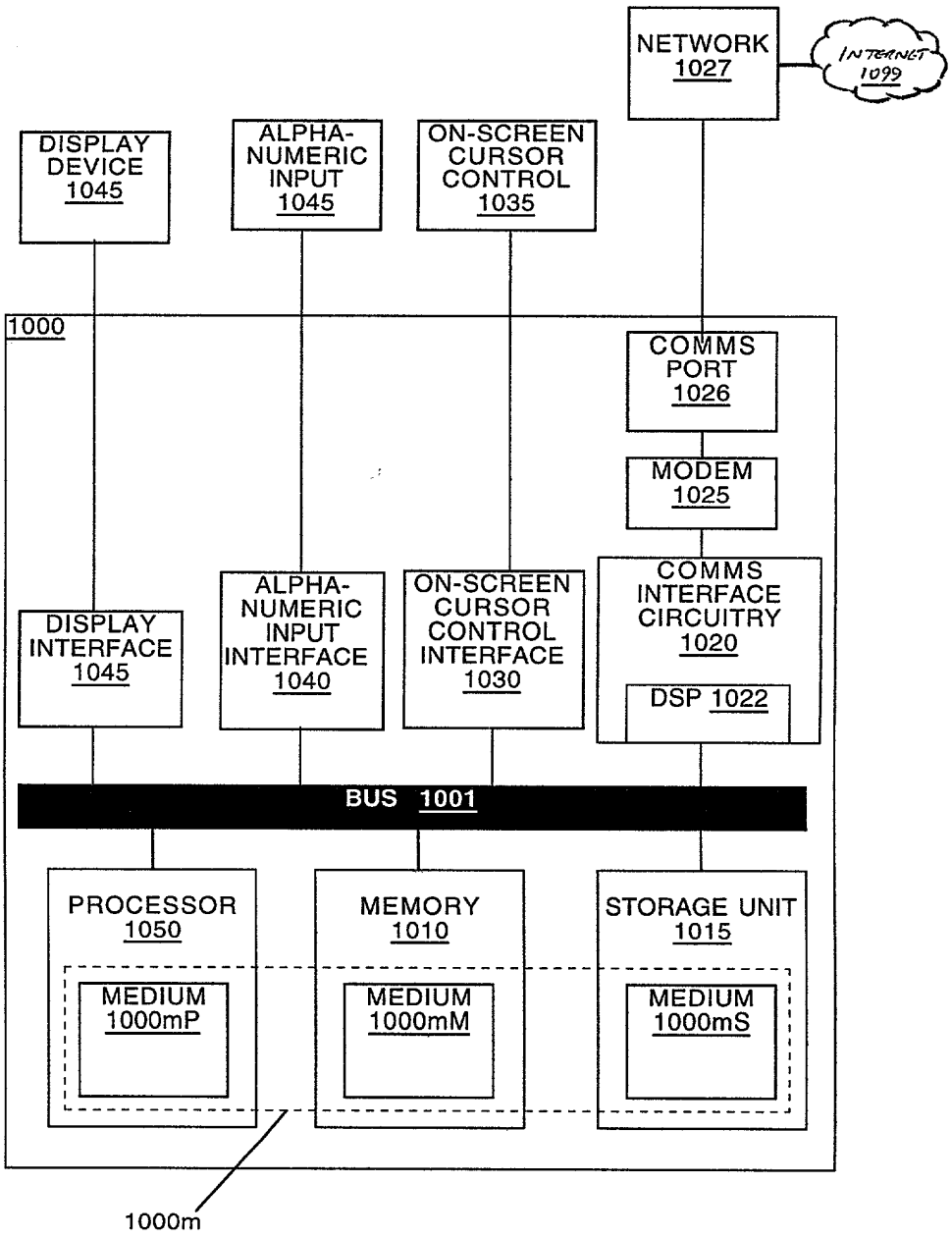
NETWORK
1027
INTERNET
1099
DISPLAY
DEVICE
1045
ALPHA-
NUMERIC
INPUT
1045
ON-SCREEN
CURSOR
CONTROL
1035
1000
COMMS
PORT
1026
MODEM
1025
COMMS
INTERFACE
CIRCUITRY
1020
DSP 1022
DISPLAY
INTERFACE
1045
ALPHA-
NUMERIC
INPUT
INTERFACE
1040
ON-SCREEN
CURSOR
CONTROL
INTERFACE
1030
BUS 1001
PROCESSOR
1050
MEMORY
1010
STORAGE UNIT
1015
MEDIUM
1000mP
MEDIUM
1000mM
MEDIUM
1000mS
1000m

Figure 10

HISTORICAL AUCTION DATA REPOSITORY

Historical Auction Data Repository contains data on past auctions. For the purposes of present invention, we assume that the following variables are observed for each auction in the database.

Auction:
- Auction ID
- Further Auction Characteristics

Auctioned Item:
- Item ID
- Name
- Quantity
- Description
- Further Item Characteristics

Mechanism:
- Auction Format
- Reserve price
- Further Mechanism Characteristics

Bidders:
- Bidder ID
- Segment ID
- Further Bidder Characteristics

Bids:
- Identities of participating bidders
- Bids submitted by participating bidders

Outcomes:
- Assigned payments for each bidder
- Assigned quantities for each bidder

FIGURE 11.A

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AUCTION CHARACTERISTICS:

- Auction ID
- Item ID
- Item Name
- Quantity
- Dates:
  - Announcement
  - Start
  - Close
- Seller/Buyer ID
- Auction Mechanism Characteristics
- Invited Bidders' IDs
- Participating Bidders' IDs and Bids, Quantities
- Outcome:
  - Assigned Price for each bidder
  - Assigned Quantities for each bidder
- Fees:
  - Shipping & Handling
  - Taxes
  - Auctioneer Fees:
    - Posting Fee
    - Ad Valorem Fee

FIGURE 11.B

BIDS:

- Bid ID
- Auction ID
- Item ID
- Bidder ID
- Bid Time Stamp
- Price Bid
- Bid Type
  - Proxy
  - Direct
- Quantity Desired
- Minimum Quantity
- Currency

FIGURE 11.C

MECHANISM CHARACTERISTICS:

- Format
  - English
  - Dutch
  - Sealed Bid First Price
  - Sealed Bid Second Price
  - Vickrey
  - etc
- Buy/Sell
- Entry Rule
  - Open
    - Free
    - Fee
  - Invitation
    - Free
    - Fee
- Reserve Price
  - Secret
  - Open
- Start Price
- Bid Increment
  - Fixed
  - Relative
- Closing Rule
  - Inactivity Time
  - Fixed Closing Time

FIGURE 11.D

0990808-070803

ITEM CHARACTERISTICS:

- Item ID
- Name
- Description
- Location
- SKU
- Manufacturer
- Model Number
- Condition
- Warranty
- Weight
- Weight Unit
- Measurement Unit
- Currency
- List Price
- etc

FIGURE 11.E

BIDDER CHARACTERISTICS:

ID

Segment ID

Name

Address

General Information

Socio Demographic Information

Etc

SELLER/BUYER CHARACTERISTICS:

Seller/Buyer ID

Name

Address

General Information

Socio Demographic Information

Etc

FIGURE 11.F

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1200

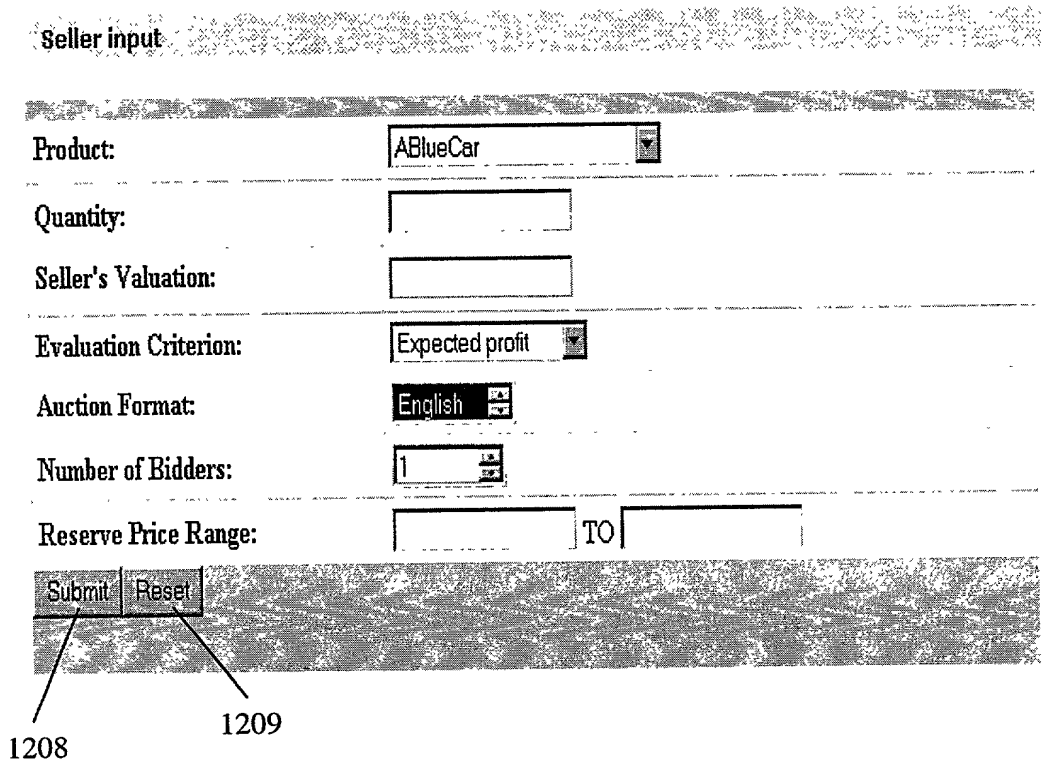

FIGURE 12

1300 RESERVE PRICE REPORT

1310 INPUTS:

Product:	ABlueCar
Quantity:	1
Seller's Valuation:	$10
Evaluation Criterion:	Expected Profit
Auction Format:	Sealed-bid first-price
Number of Bidders:	5
Reserve Price Range:	$0 TO $100

1320 RESULTS:

1321 Reserve price (in dollars)	0	10	20	30	...
1322 Expected payoff (in dollars)	60	75	80	70	...
1323 Standard deviation of payoff (in dollars)	15	17	20	25	...

1330

OPTIMAL DECISION:	
Optimal Reserve Price:	$20
Expected Payoff:	$80
Standard Deviation of Payoff:	$20

FIGURE 13

09626826.070104

1400

Analysis - Reserve Price

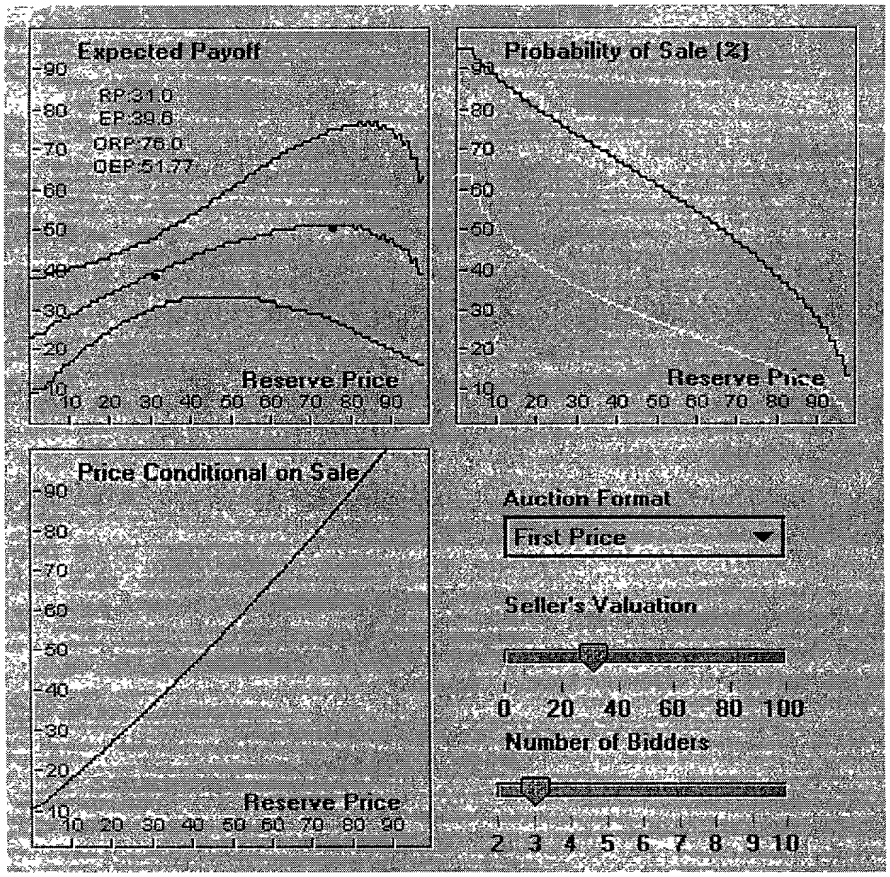

FIGURE 14

Electronic Patent Application Fee Transmittal

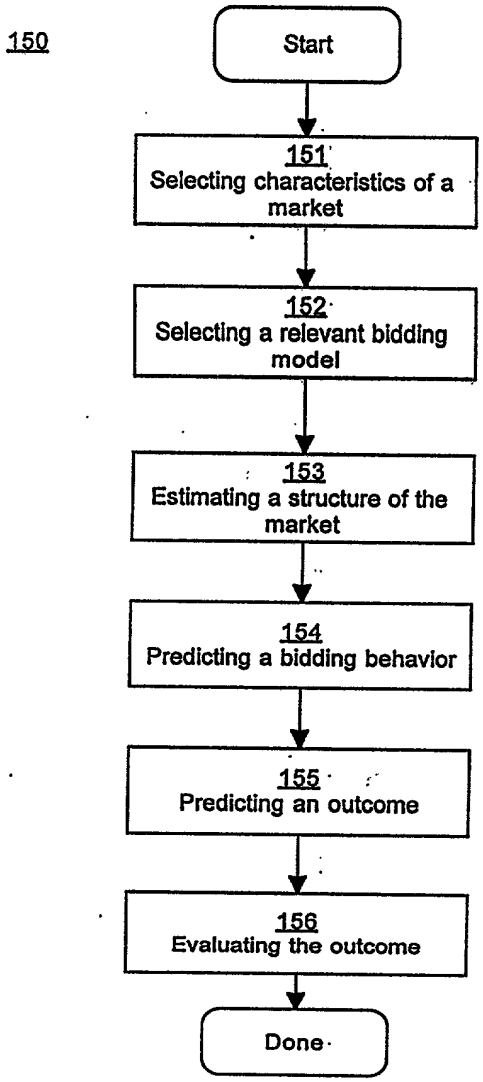

Fig. 15